Abstract of the Disclosure

[0081] Multi-functional digital signal processing
 ("DSP") circuitry can perform any of a wide range of
 different DSP functions. For example, the DSP

5 circuitry can perform multiplication of simple or
 complex numbers of different lengths. The
 multiplication of simple (i.e., non-complex) numbers
 can be augmented with addition of the resulting
 products. The DSP circuitry can also support

10 implementing finite impulse response filters of either
 even or odd order.